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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/775,163	01/31/2001	Herbert F. Cattell	10010011-1	3274

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AGILENT TECHNOLOGIES  
Legal Department, 51U-PD  
Intellectual Property Administration  
P.O. Box 58043  
Santa Clara, CA 95052-8043

EXAMINER

CLOW, LORIA

ART UNIT

PAPER NUMBER

1631

DATE MAILED: 09/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.	09/775,163	Applicant(s)	CATTELL, HERBERT F.
Examiner	Lori A. Clow, Ph.D.	Art Unit	1631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 09 August 2004.  
2a) This action is FINAL.      2b) This action is non-final.  
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-14 and 16-42 is/are pending in the application.  
4a) Of the above claim(s) 16-24, 35, 36 and 38-42 is/are withdrawn from consideration.  
5) Claim(s) \_\_\_\_\_ is/are allowed.  
6) Claim(s) 1-14, 25-34, and 37 is/are rejected.  
7) Claim(s) \_\_\_\_\_ is/are objected to.  
8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.  
10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:  
1. Certified copies of the priority documents have been received.  
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) Notice of References Cited (PTO-892)  
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_  
5) Notice of Informal Patent Application (PTO-152)  
6) Other: \_\_\_\_\_

**DETAILED ACTION**

In view of the new rejections under 102 (b) (see below), PROSECUTION IS HEREBY REOPENED.

Applicants' arguments, filed 9 August 2004, have been fully considered. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

Claims 1-14, 16, 25-34, and 37 are currently pending. Claim 15 has been cancelled. Claims 17-24, 35, 36, and 38-42 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim.

**Claim Rejections - 35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 16, 25-27, and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Yang et al. (University of California, Berkeley Technical Report # 584, November 2000). Yang et al. teach an overview of microarray technology, including image analysis. DNA microarrays (claim 2, 3, 26, 27) are imaged to measure red and green fluorescence intensities at each spot on a glass slide (claims 1, 25, 37). The intensities correspond to the level of hybridization of the two samples to the DNA. To determine foreground, background, and

feature, segmentation and intensity extraction are performed (page 3, Introduction; page 7, section 3.2). Yang et al. developed a software package called Spot, in which microarray images are produced in batches, of which can be exploited to determine characteristics such as shape and size, background estimation, and median pixel (claim 16) value (page 4, lines 4-12).

Claims 1-14, 16, 25-34 and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by GenePix Pro Array Analysis Software and Scanner (November 2000).

The Genepix system reads nucleic acids microarrays and has precision imaging analysis such that individual features may be viewed and saved (claims 1-3, 25, 26, 37). The Genepix Pro software and scanner can simultaneously acquire data and align two separately scanned images (claims 6 and 28) and allows real-time access to the images (page 1, column 2). Genepix is capable of acquiring data and providing a preview scan such that the user can optimize scan settings and reprocess (claims 5, 8, 9, 10, 27, 30) (page 1, column 2). The software includes an image tab which can offer multiple scanning options. A 10-micron data scan offers the standard resolution, however, scans at smaller microns may be performed to optimize data accuracy. File storage requirements are different for different sample types (page 2, column 1) (claim 4). Genepix also provides for saving images, analyzing data using saved array templates, and saving in a result file (claims 7, 29). User defined templates define the array layout. Templates can be saved and applied to subsequent array with similar layout. The user may define a minimum feature threshold. The feature viewer displays wavelength images and a ratio of image of that spot. It reports pixel, feature, background, and ratio measurements of intensity without having to perform analysis on the entire image (page 2, column 2) (claims 11-14, 31-34).

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**Status of Claims**

No claims are allowed.

**Inquiries**

Papers related to this application may be submitted to Technical Center 1600 by facsimile transmission. Papers should be faxed to Technical Center 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993) (See 37 CFR § 1.6(d)). The CM1 Fax Center number is either (703) 308-4242, or (703) 308-4028.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lori A. Clow, Ph.D., whose telephone number is (571) 272-0715. The examiner can normally be reached on Monday-Friday from 10 am to 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael P. Woodward, Ph.D., can be reached on (571) 272-0722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

MARJORIE MORAN  
PATENT EXAMINER

*Marjorie A. Moran*

9/16/04

September 16, 2004

Lori A. Clow, Ph.D.

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*Lori A. Clow*